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INSURANCE OF INDUSTRIAL WORKING-MEN AS AN INSTRUMENT OF TUBERCULOSIS PREVENTION¹

DR. ARNOLD C. KLEBS

Chicago

The moneys which set into motion and keep working the ever-growing machinery of tuberculosis prevention in this country are, with few exceptions, supplied by voluntary contributions, given with charitable intent. Some institutional provision for consumptives has been made out of government funds. These, of course, are preventive measures, but the tendency is to class them also as charitable institutions. This holds good for almost all our public hospitals and relief service; and, as Duclaux expressed it, "we have remained anchored to that idea of charity—a very noble, very beautiful idea, looked at from the view-point of the one who follows it, but a false, almost absurd idea, when one contemplates the benefits society can possibly derive from it."

That this is the case with us, renowned as we are for our practical sense, is particularly astonishing, because we have learned to recognize tuberculosis as a social and economic problem, probably the greatest of all problems, which by a systematic and sustained effort is eminently preventable. Such an effort must be planned; it must look forward—which charity never does. The latter cares and provides for the poor and the sick out of pure sympathy. It does signal service to suffering humanity; but here is where its legitimate field, its noble mission, ought to stop. Its services applied to fields of prevention, or to any problem needing a concentrated, sustained effort for the benefit of society, are altogether misplaced. It is wrong, and it disturbs the directness and efficiency of our actions against infectious, communicable diseases, to base them on the idea of charity. We must do away with it and put in its place the right of self-defense; which, how-

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ever, we can and must exercise with the highest humanitarian spirit.

The problem of tuberculosis, however, cannot be attacked by the same comparatively simple measures which are successfully employed against the acute infectious diseases. Here antiseptic precautions and quarantine generally suffice. Tuberculosis also, for so long considered an incurable disease, has up to very recent times called forth antiseptic measures to the exclusion of any others. The destruction of infectious sputum and disinfection were the principal methods recommended, and more or less enforced. Convincing evidence, however, has taught us that, although tuberculosis is undoubtedly caused by an infectious microbe, it is only conditionally communicable. The natural powers of resistance against its invasion are very great, and the causes which lower this resisting power are well known to us. They are numerous and intimately related to our mode of life, our habits, our bringing-up, our housing, our occupation; in one word, to the customs and exigencies of modern civilization.

Given the facts of its communicability and the opportunity for infection, together with the knowledge that the consumptive individual is the only source of the infectious material, the necessity and the direction of antiseptic measures are clearly indicated, and we have only to determine which methods are the most efficient. But given also the facts that we are naturally very resistant to this infecting agent, and that we can therefore regard it with a certain degree of complacency, we must, in view of the tremendous prevalence of the disease and its great economic importance, concentrate our principal efforts against the evil effects of certain conditions in our civilized life, which we know lower the naturally high resistance which our race possesses against the disease.

All this means, therefore, efforts against long-established and deeply rooted prejudices, against unhealthy habits and practices, against pauperizing agencies; in short, against all those factors which undermine the health and strength of individuals and the nation. Education—specific, popular, well-directed education—is the watchword and the promising remedy for these evils in

our times. In the matter of tuberculosis an educational campaign is well under way in this country, but it needs focusing, concentrating. The task is bewildering by its endless exigencies, but it can and will be fulfilled. If, as we ought, we place education in the front rank of our campaign, we must have the proper instruments to apply it; we must have schools wherein to teach; we must have teachers who know their subject thoroughly and how to teach it effectively; we must have the means for objective practical demonstration. But all this requires money, much money; we may have to call on the voluntary giver to help us in the building, but for the maintenance we need steady, reliable resources—resources which will naturally meet the exigencies and which need not be made available by spasmodic appeals. It might be said that such a plan is vague and fantastic, that it dreams of world-reform and the eradication of all evils, and that because it attempts too much it will accomplish nothing. That this is not so can be proved by examples of eminently successful efforts in the direction of such a plan. The fact that of necessity we must go step by step to come to the perfection must not discourage.

If the right and the duty of self-defense is to be the basis of our efforts, it is the one most attacked who ought to bear the largest share of the burden. To make him who is attacked, though he has not succumbed yet, an object of charity, is demoralizing, pauperizing practice. To show him how to help himself, to look forward for possible trouble on account of his exposed position, is the soundest and a perfectly practicable method. In the case of tuberculosis, who is the most attacked, most exposed one? There can be no doubt that it is the working-man, and especially the one employed in industrial enterprises. He is an asset, a very valuable asset, in society; and society has a duty, an interest, to show him, if he does not see it himself, how he can preserve his economic integrity. His sole capital is his sound body, and if that becomes defective, his income ceases.

Let a disease come to him—one which kills outright, as does pneumonia or a grave injury; the very suddenness of the catastrophe, after the shock has passed, carries in itself the stimulus for readjustment; the family will rise to it, they will adjust them-

selves, finding ready helpers, affected by the tragic and awful element in the calamity. But let another disease come to this same worker—one which will gradually but continuously sap his vitality, reducing his earnings, progressing all the time very slowly, but surely; he sees before him, not death, because next week he will be better, but hunger, distress, poverty, for himself, for his wife and the little ones. And so he borrows, hoping all along for the next week when he will be better; and this hope sees him soon in bed, from which he never will get up until he is carried out. And this has gone on through years; he has not paid his creditors; they are his enemies; his old friends he has lost; they gave him up long ago when he began to earn less and less out of “pure laziness.” Such is the story of the consumptive working-man; and when death has ended his misery, his family belong to the pauper class, robbed of all courage, diseased in body and mind, not able any more to readjust themselves—a tax on society. All this misery slowly creeping over a happy, self-supporting, and self-respecting family, barred from all the tragic elements of the sudden catastrophe and the help it brings, all the possibilities of a spread of this awful disease which it fosters in the bosom of the family, all this stupendous though unappreciated tax on society—all this is preventable.

It is well that we bring before our eyes this sad picture, because we usually see only the end of a long sequence of events, and accept it with fatalistic resignation as the inevitable. In trying to find out what tuberculosis means, we count up the fatalities and are astonished at the great numbers; we do not think of the casualties in this great battle, which make the disease the greatest of all problems. And what have we done so far to help the working-man against this his greatest foe? We give him nicely printed rules of how to lead a healthy life and so prevent consumption; we invite him to our expositions and show him that people can be cured of the disease by sleeping out of doors and by being treated in sanatoria; but before all we tell him he must not spit, or he will infect everybody around him. Some professional philanthropists are very strong in this sort of education and expect wonders from it, and forget entirely that in a

problem of such stupendous dimensions these laudable efforts are but drops in an ocean. It is a slow and wholly inadequate method, but one not to be discouraged as long as we have nothing better.

We have an example of how the problem is met with signal success, and it is worth while to analyze it. I think of the system of obligatory insurance for working-men in Germany. It has become the most powerful factor in tuberculosis prevention in that country. Every working-man of a certain wage scale is obliged by law to insure himself and his family against sickness, invalidity, and old age. His employer deducts one-half of a certain proportion of the employee's wages, and, after adding the other half to it himself, remits the total to the insurance authorities who are in charge of the funds. The contributions to this fund are a very trifling tax on the working-man, but the benefits are very great. In case of disabling sickness the insured gets for twenty-six weeks a sick benefit, one-half of the customary or day wages; his relatives, if he is taken care of in a hospital, get a sum of at least one-half of the sick benefit. At death or during confinement premiums are also paid. The invalidity insurance provides for those whose disability exceeds twenty-six weeks, also assisting a family during the treatment of the patient. This latter, particularly, has been utilized to give the working-men the benefit of a systematic and practical method of tuberculosis prevention.² This opportunity was given by paragraphs of the invalidity insurance law which make it a duty of the insurance office to provide at its expense proper treatment for the purpose

² The German sickness insurance and the invalidity and old-age insurance must not be confounded. They are different, though they supplement each other.

The insurance offices against sickness are regulated by the law of June 15, 1883. They are supported by weekly premiums the total amount of which depends on the wages, the maximum being 15½ cents, corresponding to daily wages of at least 82½ cents. In return the office has to provide the sick with medical care, medicines, sick-benefit; and in case of death a death benefit dependent on the amount of the wages is paid. The obligatory subscribers to the sickness insurance funds are the same whom the law of February 22, 1889, requires to insure against invalidity or old age.

The latter obligation is extended to every person, older than sixteen years, earning wages or salary of less than \$500, and which can be enumerated as follows: working-men, laborers, apprentices, domestics, commercial and clerical

of preventing disabling invalidity. This law thus provided the working-man, out of the funds which he himself supplied, with most excellently equipped and managed institutions, which were established by the insurance office. The tremendous expenditure necessary for this has been amply justified by the results. Since it was found that in certain industries 50 per cent. and more of the working-men were suffering from tuberculosis, and would sooner or later have their earning capacity reduced and finally become disabled, thus taxing very heavily the insurance funds, preventive measures had to be instituted as a matter of self-defense pure and simple.

The vastness of the undertaking may be gathered from a few figures. Under the law for sickness insurance there have been paid for the benefit of the insured from 1885 to 1903 nearly 300 million dollars and from the invalidity insurance funds from 1891 to 1903 200 million dollars; and during the last eight years the invalidity insurance offices took care (for an average of three months for each case) of 101,806 tuberculous patients, at a total expenditure of about 9 million dollars. Ninety thousand of these patients were taken care of in sanatoria established by the insurance office.

The protective machinery was started with the establishment of sanatoria. There are now in the neighborhood of a hundred throughout the empire. This was done because the treatment of consumptives in properly equipped and managed sanatoria had given the best results in the hands of private individuals. To return the insured as soon as possible to earning capacity, to prevent invalidism, was the business proposition.

employees, sailors on ships on sea or rivers. The premium, the amount of which is regulated by the wage scale, does not exceed $7\frac{1}{2}$ cents per week, and is paid in equal shares by the working-man and by the employer. Every insured who has paid his premiums regularly during a minimum time (about 200 weeks) has a right to a pension if he has lost his working capacity (not through accident), or when he reaches the age of seventy. This pension is composed of a fixed contribution, supplied by the state, of a fixed compensation furnished by the insurance office, and by an extra payment depending on the number and value of subscriptions made by the working-man—that is, on the duration of affiliation with the office and his value as a wage-earner. This pension, however, does under no circumstances exceed \$47.80 per year. The average amount of the contributions by the insured of which the employer pays one half is about \$5 per year. (Duclaux.)

This the sanatoria accomplished in from 70 to 80 per cent. of the patients treated, and by the saving of dividends justified the initial expenditure for these costly institutions.

Needless to say, with German thoroughness exact data were kept and statistics compiled. From these it soon became evident that better results were obtained the earlier the patient's disease was recognized and sanatorium treatment instituted. The sanatorium had trained a great number of physicians to a thorough understanding of this fact and its fundamental importance, and with their help the insurance office was put in a position where it could properly classify the patients whom it was obliged to take care of. It restricted the use of the sanatorium more and more to the earliest cases, thus improving the results achieved and insuring their permanency. This meant, however, provision for those patients who could not be considered appropriate subjects for sanatorium treatment, and in the last years this fact has been the impetus for the creation of other institutional provisions, in a sense even more important for the prevention of tuberculosis, than the sanatorium.

Again this was dealt with on business principles, with the underlying thought that prevention pays best, and that therefore the maximum effort had to be given to the curable, preventable case, the minimum to the incurable one. By making contracts with hospitals, and by also establishing such out of the funds, the incurable case was provided for in a way much less expensive than in sanatoria. For those cases on the borderline curability, observation stations were created—simple open-air day camps where the patient could spend his day in the open air, well fed and properly supervised. These camps—*Genesungsheime*, "convalescent stations"—of late have been also utilized for patients dismissed from the sanatoria. In the sanatorium the patient had gone through a régime of rest in the open air; here he is held to occupation in order to fit him better and more permanently for work, and if his former occupation was such as to expose him seriously to the probability of a relapse, a chance was given him to learn other pursuits, in which he could not only earn a living, but improve his bodily condition and make permanent the benefit

derived from the sanatorium régime. Similar camps, but with a somewhat different purpose, have sprung up at the same time for those cases in which for some reason or other tuberculous trouble was anticipated, though no definite diagnosis could be made. I refer to the *Erholungsstätten*; "open-air rest camps" this term can be translated. Situated near cities or great industrial centers, they offer to "run-down" working-men a vacation, a rest in the open air with good food and no care, since his family is also provided for—a luxury which thus far only the man with capital could indulge in, but a very important factor in the prevention of a disease which is so insidious in its beginning that it will often be impossible to make a diagnosis until conditions are irremediable.

All this does not yet cover all the details of this admirable preventive machinery. The connecting link is provided for by the most important institution of the *Fürsorgestelle*. "Information and advice station" it might be called, though this describes only one phase of its activity. They correspond in some ways to the French *dispensaires*, inaugurated by Calmette, but they are simpler, more compact, and their effect more far-reaching because they work in intimate association with the factors above described. They primarily give information to patients, but they give no relief themselves; they direct and advise appropriate relief and treatment, as the exigencies of the given case may demand, the insurance agencies providing the same. But they do a great deal more: they exert a hygienic and sanitary supervision over the patient's family and his home. They employ for this splendidly trained and experienced nurses. The physical condition of each member of the family is determined and supervised. Children in defective health, so discovered, are taken out of city schools and sent to the country or seashore; or, if that is not needed, they continue their studies in the so-called forest schools, where the classroom is a forest or a simple open shelter in it, where they are properly fed and their bodily and mental welfare looked after.

I have dwelt at length on the details of these provisions, because it seems to me necessary to emphasize that it is not the

insurance principle, as such alone, which is important as an instrument of tuberculosis prevention. The payment of sick benefits and premiums alone can never accomplish what properly conceived, planned, and managed provisions, as described, can do. Through the latter is brought about the appropriate and effective juxtaposition of muscular power and brain power for the common good. There in Germany a wise government has conceived and initiated the plan; it has given to those whose health is their principal capital the opportunity to save a penny in the right time, to use it when it is sorely needed; it has made the employer contribute his share to it, for he also is interested in the good working condition of the one he employs. The employers have gladly responded to the call, and in many instances they remit the whole amount instead of the obligatory one-half. The working-men at first resented the tax and the order of the paternal government; but they soon found how much they were the gainers, and now there is pretty general satisfaction with the plan, and the utilization of its provisions has become a matter of course.

To us here, with our individualistic tendencies, with what we are pleased to call "personal liberty," anything savoring of paternalism or governmental coercion is eminently distasteful. But as our institutions grow older and more complex, we become more conscious of the wastefulness and other shortcomings of an unrestricted application of the individualistic doctrine. The necessity of individual submission to social exigencies becomes more and more appreciated. The wave of moral reform which has struck this country is a manifestation of this tendency, and is sure to be followed by one for physical betterment. In this tuberculosis must surely become the most prominent point of attack.

Mr. W. J. Bryan has recently said, very justly: "Individualism and socialism define tendencies rather than concrete systems;" so we need not become sectarians or pedants if we lean more toward one side than the other. In general, all government is more or less socialistic, and certainly the management of the German insurance plan deserves this term, for it means collective ownership and operation of all its provisions and institutions through the state for the benefit of society. By distributing insur-

ance offices throughout the empire, by respecting the personal liberty of the individual to the fullest extent as far as the interests of the common good will allow it, by permitting a voice in the management of the plan to those most interested, individual initiative is not suppressed, but furthered. The working-man simply takes what he has paid for; he owes nothing to charity; and when he goes to these institutions to regain his health, he feels at home. The promotion of this state of mind is very important; the charity system brings demoralization, loss of self-respect, pauperization of a class whose principal defect in its social struggles is lack of acquaintance with fundamental principles. It can pay for the teaching, but it needs the leaders, teachers, and schools.

The possibility of an obligatory insurance system for working-men in this country is looked at with grave doubt. The reason for this is twofold—the one a general aversion to coercion, already alluded to; the other an unfavorable comparison with existing insurance institutions. The latter shows insurance as an expensive machinery, too costly for the class under consideration for the benefits it can afford. Agencies and collections are chiefly responsible for this high cost. With a total expenditure of about 26 per cent. of the premiums, statistics show that the present-day agency system costs the policy-holders of American companies over 16 per cent. of all premiums paid—i. e., 60 millions out of 378 millions dollars of premiums in 1904.

So-called industrial insurance, small policies with weekly payments, taken chiefly by wage-earners and their families, provides from 50 to 60 per cent. of its premiums for expenses, caused by the great cost of “writing” and collecting these small amounts one at a time.

In the German obligatory system, where the moneys are simply deducted from the wages and forwarded by the employer, all this expenditure for agents and collections is saved. A private corporation also guards itself against bad risks by medical examination of applicants, thus excluding many in need of it. The obligatory system accepts everyone as long as he is capable of earning a certain sum, holding that those earning less or more

can and must in the first case be taken care of by charity, in the second case take care of themselves.³

Insurance by private corporations, however, can be so managed that it will be made economical and accessible to the wage-earner. There is a plan now being perfected for the formation of such an organization in Massachusetts, modeled after English companies which, by doing away with the agency system, selling insurance over the counter, have brought the entire expense down to 4.6 to 9 per cent. of the premiums. It is counted that such a system will bring about a reduction of 15 per cent. in premium rates, and that industrial insurance can be furnished at a saving of from 30 to 40 per cent. of the rates now charged by the present industrial companies; the latter saving to be accomplished by abolishing the collecting system, through co-operation of the employers, who are expected to attend to the solicitation and collection for the entire force of their employees.

Certain large corporations, employers of great numbers of working-men, have for some time seen the necessity of protective insurance relief or benefit provision for their employees, and have put such a system into working operation. In these relief departments the company usually provides the administrative expenses and guarantees the whole undertaking, reserving to itself the right of representation on the managing board. Some of these departments, especially those of some railroad companies, are splendidly managed and have proved immensely useful to the working-men. The subject of prevention of disease, however, has not been attacked by them, but there is no doubt that it is bound to come.

Fraternal associations, friendly and benefit societies, and trade-unions have all certain insurance features, and some of them would seem to have sufficient means to grapple with the

³ Professor C. R. Henderson estimates the minimum of existence for American conditions at \$600 in a family of five persons, and considers as proper subjects of obligatory insurance the large class of working-men who earn between \$600 and \$900 per family (including earnings of wife and children). He thinks that this may be extended downward to \$400 and upward to \$1,000 in some localities, and that above \$1,000 a special provision may be made for optional use of the insurance offices up to \$1,300 or so. (The German law places the upper limit at \$500.)

problem of tuberculosis prevention. Concrete plans in this direction have, as I understand, been submitted to the National Fraternal Congress, where resolutions were passed and a committee appointed to investigate the matter. The beneficiary orders have a membership of 5,000,000; together with the purely fraternal orders, 8,000,000. At a penny per month, \$600,000 to \$960,000 could be collected, which, it is figured, will amply suffice to purchase the ground and erect a sanatorium, and one cent per member twice a year thereafter would maintain the institution. The plan is proposed principally on financial grounds, and on the estimate that \$9,000,000 has been paid yearly out of the treasuries in death benefits for those who have died from tuberculosis.

These plans have their duplicates in England. There a National Committee for the Establishment of Sanatoria for workers has been formed at the initiative of the Hospital Saturday Fund. In this committee are represented various benefit societies. A sanatorium for 200 patients, to cost not more than \$250,000 (1,000 to \$1,250 per bed), is to be established and to be made self-supporting by endowments of beds by friendly societies for use of their members (at the rate of about \$6 weekly per bed). A site of 250 acres is selected, and the plan provides for the establishment of a farm colony, where those patients whose condition allows it can learn horticulture, fruit-growing, and other desirable outdoor pursuits. The capital sum necessary for the erection of buildings is estimated at about \$250,000, which is to be raised by public subscription and with the assistance of the Friendly Societies.

This combination of benefit associations is certainly worthy of interest and should induce imitation. It may perhaps be well to outline the scheme proposed by the post-office employees by which they intend to cover the expenses for treatment of their fellow-workers in the above sanatorium. It has been figured out that a deduction of a halfpenny a week from the wages will supply ample funds to endow fifty beds, and the postmaster-general has consented to such a deduction being made by the proper officers from the wages of post-office employees who give their consent. Any employee contracting tuberculosis, and found suitable by

the physician for sanatorium treatment, can be admitted free of charge to the sanatorium, with six months' leave on full pay to enable him to provide for his family. (Latham.)

We have certainly plenty of strong associations of working-men in this country, heavily taxed by tuberculosis, who could take similar action. The Cigar-Makers' Union, for instance, as it was recently shown in an admirable address made by its president, Mr. G. W. Perkins, at a conference of the Chicago Tuberculosis Institute, expended in 1905 20 per cent. of its death benefits on account of those who died from tuberculosis, and 24 per cent. of its sick benefits for those suffering from the disease; that is, a total of about \$73,300.

All these examples show efforts in the right direction, and a realization that the problem of tuberculosis must be met by methods and measures, supported primarily by those most interested. But the question of tuberculosis prevention, it must be remembered, cannot be solved only by introducing inexpensive insurance and by building sanatoria. The insurance must be guided and utilized for appropriate provisions, and of this the sanatorium is only one, as is well exemplified by the experience in Germany. A sanatorium which is instituted only for the purpose of curing and restoring the working-men to earning capacity does not fulfil its mission. If it is not primarily used as a school for practical demonstration and teaching of principles and methods of hygiene and prevention, I for my part would rather do without it. The expensiveness of its construction in Germany, England, France, and to some extent also in this country, prevents its needed multiplication and also defeats its purpose as a school. Let us not imitate Germany in this respect by building palaces for the consumptive working-men, who cannot help but feel discontented when they return to unpretentious homes. The desired end can be accomplished by very simple, inexpensive, and equally, if not more, efficient buildings. In this direction our country is probably leading the way.

The sanatorium, however, even if built according to these principles must be regarded only as one factor in tuberculosis prevention. To become really effective, it must be supplemented

by institutions and provisions similar to those which long experience has evolved in Germany. It may stand in the center of our efforts, but we must not put all our faith in it.

In reviewing the whole subject, we cannot fail to realize the tremendous interest which the industrial workers have in this struggle. We must show them how to help themselves, how to save in time a penny to be ready to meet this greatest foe of theirs. We must do away with the false idea of charity in assisting in those features of the problem which particularly touch them. If we do it on the lines shown, either by obligatory government insurance against invalidity, or by organized interest and voluntary insurance, we put the whole struggle on the basis where it belongs—that of the right to self-defense of the attacked. Then the tuberculosis crusade will become what it ought to be, not only an effort against a disease, of which we have just become conscious, though it has long been with us, but a fight for better conditions generally, and particularly among the great mass of honest, self-respecting workmen. Let us hope that the efforts made toward giving them the means through insurance, as this is now under consideration in some states, may prove successful.